



IDEM Permit Guide

Construction Approval for (changes to) Existing Sources

Who May Need a Change to an Operating Permit?

Existing sources sometimes wish to change or add an emission unit(s) or pollution control unit, or otherwise alter their manner or scale of operations. These changes can sometimes be so insignificant as to be exempt from IDEM approval requirements, or may only require that the source notify IDEM that certain "notice-only" changes were made.

On the other hand, the changes may be extensive enough that the source must request a permit or source modification from IDEM prior to making the desired changes. Any such approved changes could further result in a change to the source's source category or its potential to emit that is substantial enough to require that the operating permit itself may need to be changed to the next higher, or lower, level.

Repairs and Reconstruction

Some types of repairs do not require permit revisions or IDEM approval. However, other activities to replace existing equipment may require approval. In particular, the reconstruction of emissions units or pollution control equipment definitely requires permit modification approval. An emission unit shall be considered to be reconstructed when the fixed capital cost of the new components exceed fifty percent (50%) of the fixed capital cost of a comparable entirely new emissions unit.

Types of Changes to Operating Permits:

The numerous degrees of change that can be requested for a specific type, or level, of operating permit –

- Exemption
 - Registration
 - Permit-by-Rule
 - Source Specific Operating Agreement (SSOA)
 - Minor Source Operating Permit (MSOP)
 - Federally Enforceable State Operating Permit (FESOP)
 - Title V Operating Permit

Permitting requirements associated with source or permit changes

The following permitting requirements associated with source or permit changes at these various source levels may include, (but are not limited to:)

Exemption

Existing sources wishing to make source or permit modifications must follow a specific source modification process. However, since exempt sources, including those which have been issued a letter of Exemption, do not hold a permit which can be modified, they instead remain subject to New Source Review, and must follow the same process outlined under Construction of New Sources as any other source not holding a permit. The modifications could be so minor that the source remains exempt. In such instances, they may submit an application and again be issued a letter of Exemption. On the other hand, the modifications could be substantial enough to increase the source's potential to emit any regulated pollutant(s) such that it is required to register as a source or to obtain construction and operating permits.

Registration (Level Operating Conditions)

Sources which previously have been required to register generally must comply with operating conditions written into the Registration. When such sources make subsequent changes they may be determined to be

1. exempt from any additional operating conditions or permitting requirement, or they could be
2. required to submit notification of a Notice-Only Change to a Registered Source, or
3. obtain approval for a Modification to a Registered Source.

In addition, if the resulting newly modified source's potential to emit is above the thresholds for Registration, the source will have to submit an application to transition into the appropriate level of operating permit.

Changes to a Registration can be classified as:

Modification Exemptions at Registered Sources (include the following):

Modifications to existing registered sources which are exempt from any additional operating requirements include changes involving water-related activities, ventilation, routine building maintenance, lubrication, the use of hand-held tools, or janitorial, office-related, storage, sampling and testing equipment and activities, or other miscellaneous and similarly inconsequential activities.

Notice-Only Changes at Registered Sources (include the following):

- Minor administrative changes,
- Modifications that would require more frequent monitoring or reporting,
- Modifications that would increase the potential to emit for a hazardous air pollutant (HAP) by at least 1 TPY (tons per year) or for a combination of HAPs by at least 2.5 TPY, but which would not increase the total potential to emit for HAPs for the entire source to above 10 TPY for a single HAP, or 25 TPY for any combination of HAPs,
- Modifications that add emissions units with a potential to emit of less than:
 - 25 TPY (tons per year) of carbon monoxide,
 - 10 TPY of:
 - Sulfur dioxide,
 - Oxides of nitrogen (NOX), or
 - Volatile Organic Compounds (VOCs) for sources or modifications that do not require air pollution control equipment to comply with applicable VOC rules,
 - 5 TPY of :
 - Particulate matter (PM),
 - Particulate matter smaller than ten microns (PM-10),
 - VOCs for sources or modifications that require air pollution control equipment to comply with applicable VOC rules,
 - Hydrogen sulfide,
 - Total reduced sulfur,
 - Reduced sulfur compounds, or
 - Fluorides,
 - 2.5 TPY of a combinations of (HAPs),
 - 1 TPY of a single HAP, or
 - 0.2 TPY (400 pounds) of lead, or
- Modifications "involving pollution control or prevention projects" that do not increase the potential to emit for;
 - Lead or lead compounds measured as elemental lead by more than 5 ton per year (TPY) or for lead sources involved with smelting, gasoline additives, or storage battery manufacturing by more than 1 TPY,
 - Carbon monoxide by more than 100 TPY,
 - A single hazardous air pollutant (HAP) by more than 10 TPY or by 25 TPY for any combination of HAPs, or
 - Increase by more than 25 TPY the potential to emit for particulate matter, particulate matter smaller than 10 microns, sulfur dioxide, oxides of nitrogen, volatile organic compounds, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds or fluorides.
 - Modifications that have a potential to emit equal to or more than 1 ton per year (TPY) but

- less than 10 TPY of a single regulated hazardous air pollutant (HAP) or equal to or more than 2.5 TPY but less than 25 TPY of a combination of HAPs .
- Modifications to repair or replace existing equipment, but not to
 - Repair or replace an entire process,
 - Reconstruct an entire process, or
 - If the repairs or replacement result in an increase of actual emissions, or
- Modifications to emission units whose primary purpose is research and development, laboratory activity, or educational and teaching activities, or
- Modifications related to combustion, refueling, storing, lubricating, or degreasing, or
- Other inconsequential source specific activities

Registration Modification

Any registered source proposing to make a change or modification that is not described under Modification Exemptions at Registered Sources or a Notice-Only Change to a Registered Source must submit an application concerning the proposed change or modification prior to making the change or modification. In addition to including all relevant administrative information, a construction schedule, and information regarding the emission unit(s) and any emission control equipment comprising the source, the applicant also must identify any new applicable requirements to which the source will be subject to as a result of the changes, including emission limits and monitoring and record keeping requirements as appropriate.

Permit-by-Rule

Sources operating under the Permit-by-Rule need not request IDEM's approval for source modifications so long as total source actual emissions (this includes the total emissions from the existing source plus the modification) of regulated air pollutants remain 20-percent below major source threshold levels (of the attainment/non-attainment area in which the source is located) without the use of any air pollution controls. For example, a source in an attainment area may continue to operate under a Permit-by-Rule so long as it makes no changes that increase its actual emissions to levels equal to, or above 20 TPY (tons per year) of carbon monoxide, oxides of nitrogen (NOX), sulfur dioxide (SO₂), volatile organic compounds (VOCs), particulate matter, or particulate matter smaller than 10 microns (PM-10), and equal to, or more than, 2 TPY of lead or any other single hazardous air pollutant (HAP), or equal to, or more than, 5 TPY of a combination of HAPs.

However, if a source operating under a Permit-by-Rule intends to make modifications that are subject to federal requirements such as Maximum Achievable Control Technology (MACT), or Lowest Achievable Emissions Rates (LAER), or that are subject to the Indiana Best Available Control Technology (BACT) rule (326 IAC 8-1-6), that source must obtain IDEM approval prior to construction, and will no longer be eligible to operate under the Permit-by-Rule program. It will instead be required to apply for, and be transitioned into a another operating permit program.

Similarly, source modifications which would raise the total source actual emissions of the source above the 20-percent major source threshold levels also would require that the source transition into a different operating permit program. Such modifications must be pre-approved, which may require that the source first obtain the appropriate level of construction permit prior to making any modifications.

Source Specific Operating Agreement (SSOA)

In all, there are 23 separate SSOAs available to applicants, covering 13 specific types of activities. A source operating under a SSOA is limited in terms of changes and operational flexibility. Even source modifications which would not cause it to exceed the pre-established parameters of the SSOA may require approval from IDEM if the modifications are subject to federal requirements.

In addition, if the source proposes to make modifications which could increase in the potential to emit any regulated pollutant(s) beyond the pre-established operating parameters of the SSOA, it must first apply for the appropriate level of construction approval and then be subsequently transitioned into the appropriate level of operating permit program.

Minor Source Operating Permit (MSOP) and Federally Enforceable State Operating Permit (FESOP)

The various levels of changes to a MSOPs and FESOPs include:

- Exemptions,
- Notice-Only Change (to MSOP),
- Administrative Permit Amendments (to FESOP),
- Minor Permit Revisions, or
- Significant Permit Revisions

Exemptions for Modifications to Existing MSOPs and FESOPs

- Modifications to existing sources that are proposed to be operated or constructed, that have a potential to emit less than the following amounts of regulated pollutants are exempt from any additional permitting requirements.

Less than:

- 25 TPY (tons per year) of carbon monoxide,
- 10 TPY of:
 - Sulfur dioxide,
 - Oxides of nitrogen (NOX), or
 - Volatile Organic Compounds (VOCs) for sources or modifications that do not require air pollution control equipment to comply with applicable VOC rules,
- 5 TPY of :
 - Particulate matter (PM),
 - Particulate matter smaller than ten microns (PM-10),
 - VOCs for sources or modifications that require air pollution control equipment to comply with applicable VOC rules,
 - Hydrogen sulfide,
 - Total reduced sulfur,
 - Reduced sulfur compounds, or
 - Fluorides,
- 2.5 TPY of a combinations of (HAPs),
- 1 TPY of a single HAP, or
- 0.2 TPY (400 pounds) of lead.

Other source specific exemptions include:

- Modifications to emission units whose primary purpose is research and development, laboratory activity, or educational and teaching activities,
- Modifications related to combustion, refueling, storing, lubricating, or degreasing, or
- Other inconsequential source specific activities.
- Notice-Only Change (to MSOP)

A notice-only change allows an existing MSOP source to make typographic or administrative changes, to increase monitoring, to install pollution prevention projects that do not increase potential to emit, or to make modifications that increase potential to emit for HAPs by more than 1 ton per year (TPY), but less than 10 TPY. It also allows a MSOP source to make replacement repairs, or add emission units of the same type that already are permitted and that will comply with the same permit conditions, except if the addition pushes the source above the PSD or Emissions Offset threshold. Applicants must submit the request for revisions within 30 days after the changes are made. There is no public comment period requirement.

Administrative Permit Amendments (to FESOP)

An administrative permit amendment allows changes to an existing FESOP source including making typographic or administrative changes, revising descriptive information where the revisions do not trigger new requirements, or incorporating alternative testing or compliance monitoring requirements that have received EPA approval. It also allows FESOP sources to construct and operate modifications that

received prior approval, modifications that will replace or repair equipment (so long as the modifications do not result in repair or replacement of an entire process, qualify as reconstruction, or result in increased emissions), or adding emission units of the same type that already are permitted and that will comply with the same permit conditions, except if the addition pushes the facility above the PSD or Offset threshold. The source may implement the changes addressed in the request for an administrative permit amendment immediately upon submittal of the request, and IDEM must take final action on the request within 60 days. There is no public notice requirement.

Minor Permit Revisions to Existing MSOPs and FESOPs

Minor permit revisions to a MSOP or FESOP are very similar. A source operating under a MSOP or FESOP must obtain a minor permit revision prior to:

1. Reducing the frequency of monitoring or reporting requirements;
2. Adding or relocating portable sources that will change permit terms or conditions;
3. Making modifications with a potential to emit of :
Equal to or more than 5 TPY (tons per year) but less than 25 TPY of:
 - Particulate matter (PM),
 - Particulate matter smaller than 10 microns (PM-10),
 - Hydrogen sulfide,
 - Total reduced sulfur,
 - Reduced sulfur compounds,
 - Fluoride, or
 - Volatile organic compounds (VOCs) for modifications that require the use of air pollution control equipment to comply with VOC rules;Equal to or more than 10 TPY but less than 25 TPY of:
 - Sulfur dioxide,
 - NOX (nitrogen dioxides and oxides of nitrogen), or
 - VOC emissions not requiring pollution control equipment,;Equal to or more than 25 TPY but less than 100 TPY of carbon monoxide; or
Equal to or more than 0.2 TPY (400 pounds) but less than 5 TPY of lead;
4. Making modifications involving a pollution prevention or pollution control project which do not increase the potential to emit of any regulated pollutant greater than the thresholds listed above but which require a significant change in the method or methods used to demonstrate or monitor compliance;
5. Making modifications for which the potential to emit is limited to less than 25 TPY for any regulated pollutant or any combination of the 189 federally listed hazardous air pollutants (HAPs) or to less than 10 TPY for a single HAP by limiting solvent or fuel usage, raw material put through, hours of operation, or by using particulate air pollution control devices; or
6. Making modifications for which the source requests emission limits to avoid the best available control technology (BACT) for VOC emissions of more than 25 TPY.

Significant Permit Revisions for Modifications to Existing MSOPs and FESOPs

Significant permit revisions to a MSOP or FESOP also are very similar. A source operating under a MSOP or FESOP must obtain a significant permit revision prior to making modifications which would:

1. Raise the potential to emit of the source above the federal Prevention of Significant Deterioration (PSD) or Emissions Offset threshold;
2. Require the source to upgrade the level of its operating permit to a Federally Enforceable State Operation Permit (FESOP) or Title V;
3. Require BACT for increases in potential to emit for VOCs of more than 25 TPY (tons per year),
4. Increase the potential to emit for criteria pollutants by:
More than 100 TPY (tons per year) for carbon monoxide;
More than 25 TPY for:
 - Sulfur dioxide,
 - NOX (nitrogen dioxide or oxides of nitrogen),
 - Volatile organic compounds,
 - Particulate matter (PM),

- Particulate matter smaller than 10 microns (PM-10)]
 - Hydrogen sulfide,
 - Total reduced sulfur,
 - Reduced sulfur compounds,
 - Fluorides, or
 - Any combinations of the 189 federally listed hazardous air pollutants (HAPs),
- More than 10 TPY for a single HAP; or
 More than a 0.6 TPY (1,200 pounds) increase for lead emissions at sources already emitting more than 5 TPY; or
 Allow any pollution prevention project which would raise a source's potential to emit above these thresholds.

Title V Operating Permit

Although some modifications to Title V sources may be exempt from additional permitting requirements, all Title V sources proposing to construct new emissions units, modify existing units, or otherwise modify the source must first submit a modification application (under 326 IAC 2-7-10.5(c)). In fact, a source operating under a Title V permit must undergo a twofold approval process; obtaining separate approvals for source modification and permit modification.

There are two levels of sources modification; minor and significant. A source may not begin construction of either a minor or significant source modification prior to the issuance of the source modification. In addition, all construction approved by a source modification must commence within 18 months of issuance of the modification.

Exempt Title V Source Modifications

The modifications to source activities from which Title V sources are exempt are similar, but not limited to the changes from which MSOP and FESOP sources also are exempt. However, a Title V source which does not have an issued Title V permit must incorporate any such modifications into its pending Title V permit application, except if they already are participating in an alternative operating permit program (such as a SSOA).

Title V Minor Source Modifications

The changes in source activities or potential to emit thresholds which trigger Title V Minor Source Modifications are similar, but not limited to, those changes which require minor permit revisions for MSOP or FESOP. Minor Source Modifications must be issued by IDEM within 45 days.

Sources which do not have an issued Title V permit may begin operating a modified source when construction is complete, while, sources that have an issued Title V permit may request that the required administrative amendment to the permit be done at the same time as the source modification. A source modification will give the authority to construct, but the source will not be able to operate the modified source until EPA has completed its 45 day review of the administrative amendment to the Title V permit.

Title V Significant Source Modifications

The changes in source activities which trigger Title V Significant Source Modifications are similar, but not limited to, those changes which require significant permit revisions for MSOP or FESOP. IDEM has 120 days to review a Significant Source Modification, except that if the modification will increase the source's potential to emit above federal construction permit thresholds, IDEM will have 270 days to review the modification request. There also will be a 30 day public notice period and both the draft and final source modifications will be sent to EPA for review.

Sources which do not have an issued Title V permit must submit an Affidavit of Construction to IDEM prior to operating a modified source, while sources that have an issued Title V permit may request that the required administrative amendment to the permit be done at the same time as the source modification. A source modification will give the authority to construct. A source will not be able to operate the modified

source until EPA has completed its 45 day review of the administrative amendment to the Title V permit.

Prior Approvals

Both FESOP and Title V permits may include prior approvals of specifically identified modifications that will take place during the 5 year permit term.

Interim Construction Permits

Interim Construction Permits allow the applicant, under limited circumstances, to commence, at their own risk, the construction or modification of a new emissions unit or control device at an existing source while the permit revision application is being reviewed. Interim approvals are subject to the requirements of 326 IAC 2-13-1. A \$500 filing fee is assessed.

IDEM is allotted varying amounts of time to act on approval requests:

- (a) Seventeen days after the publication of the public notice if no comments are submitted within the public comment period, or
 - (b) Thirty-one (31) days after the publication of the public notice if comments are submitted within the public comment period, or
 - (c) Nineteen days after the receipt of the petition for the interim, ranging from 17 to 31 days depending on whether comments are received and whether it is a minor or significant modification.
- (whichever is the later date of the above)

Approvals are automatic if IDEM does not issue a decision. However, interim approval expires on the effective date of the final permit revision approval or denial.

Applicability

The interim petition is applicable to proposed modification/revision to an existing source operating under valid operating permit(s) and located in an attainment area.

Non-eligible Projects: Modifications/revisions ineligible for the interim petition program include

- Construction of a new major PSD facility or major PSD modification to an existing source, or
- Construction in a nonattainment areas that would emit those pollutants for which the nonattainment designation is based, or
- Construction of a totally new plant, or
- Any modification that is subject to 326 IAC 2-4.1 (New Source Toxics Control).

Mobile Sources

Portable sources, such as concrete batch mixer plants or asphalt plants must obtain approval prior to relocation.

Some of the things an existing source should do when proposing source and/or permit modifications include (but are not limited to):

- Contact IDEM prior to making any source modification if there is any doubt whether the proposed modifications are exempt from any permitting requirements or may require pre-construction approval;
- Submit the appropriate application and fees if pre-approval is required, or
- File, in a timely fashion, the appropriate notification to IDEM if construction pre-approval is not required but certain "notice-only" modifications were made which require that the source notify IDEM;
- Be mindful that not only may certain modifications require approval prior to construction, but that an increase or decrease in the potential to emit or a change in the source category of the source may be such that the current operating permit of the source may need to be upgraded or downgraded;
- Submit the appropriate operating permit application, if a change in operating permits is required;
- Submit a \$100 filing fee (except that no filing fees are collected to modify FESOP or Title V

- sources); and
- Operate under the existing operating permit until the new operating permit is issued.

What to Expect

In summary, any existing source wishing to make modifications may be 1) exempt from any permitting requirements, 2) required to notify IDEM within 30 days of such modifications, or 3) required to obtain IDEM-approval prior to making any such modifications. In addition, the proposed modifications might also require a change in the status of the source's current operating permit.

Existing Source Modification Table:

The various levels of modification each have different maximum IDEM and/or EPA review times, public notice requirements and permit fee costs, as delineated below:

Type of Modification	Public Comment Period	Days for IDEM Review	EPA Review; Days	Fees
Exemption (regardless of the level of the source's operating permit which may be undergoing modifications which are exempt)	None	45 days	None	\$100, only if applicant files for a letter of Exemption, no fee for FESOP or Title V sources
Registration (only modifications to some previously exempt sources are eligible to receive a Registration for modifications to an existing source)	None	60 days	None	\$100 filing fee, plus \$500 registration fee
Notice-Only Changes at Registered Sources	None	Submit notice within 30 days of modifications being made	None	None
Registration Modification	None	45 days	None	\$100 filing fee, plus \$500 if another Registration is issued
Permit-by-Rule	Source need not notify IDEM unless proposed modifications are subject to federal requirements or increase actual emissions above permit-by-rule thresholds			
SSOA	Source need not notify IDEM unless proposed modifications are subject to federal requirements or change the scale of operations or increase the source's potential to emit above pre-established SSOA thresholds			
Notice-Only Change (to MSOP)	None	Submit notice within 30 days of modifications being made	None	None
Minor Permit Revision, MSOP	None	45 days	None	\$500
Significant Permit Revision, MSOP	30 days	120 days or 270 days (for revisions subject to	None	\$3,500

Type of Modification	Public Comment Period	Days for IDEM Review	EPA Review; Days	Fees
		federal PSD or offsets)		
Administrative Permit Amendment (to FESOP)	None	Source can implement requested changes upon submittal, and IDEM must respond within 60 days	None	None
Minor Permit Revision, FESOP	None	45 days	None	\$500
Significant Permit Revision, FESOP	30 days	120 days or 270 days (for revisions subject to federal PSD or emissions offsets)	None	\$3,500
Title V Administrative Amendment	None	60 days	None (45 days, if incorporating a source modification)	None
Title V Minor Source Modifications	None	45 days	None	\$500
Title V Minor Permit Modification	None	90 days	45 days	None
Title V Significant Source Modification	30 days	120 days or 270 days (for revisions subject to federal PSD or offsets)	45 days	\$3,500
Title V Significant Permit Modification	30 days	9 months (simultaneous with source mod)	45 days	None
Interim Approval	17-31 days*	19 days	None	\$500 Filing and review fee**
<p>*Seventeen days after the publication of the public notice if no comments are submitted within the public comment period; Thirty-one (31) days after the publication of the public notice if comments are submitted within the public comment period; or Nineteen days after the receipt of the petition for the interim, ranging from 17 to 31 days depending on whether comments are received and whether it is a minor or significant modification (whichever is the later date of the above).</p> <p>**Note this fee is in addition to applicable fees for review of the permit application to construct and operate</p>				

Transitioning Between Operating Permit Programs

As mentioned above, modifications to a source could alter its source category or increase, or decrease, its potential to emit any regulated air pollutants to such a degree that the source must be transitioned from one operating permit program to another. Thus, when a different operating permit will be required, permitting becomes a two step process. IDEM will 1) issue the modification approval (a modification will not be written for a registration if it is going to a higher level -- a Notice of Deficiency is sent requesting the information needed to write the operating permit) as well as 2) provide the source with an application which it must complete and submit for the appropriate new level of operating permit. The source must continue operating under the conditions of its current permit until the new operating permit is issued. The time periods allotted to IDEM for review of operating permit applications transitioning a source from one operating permit program to another are as follows:

To From	Registration	Permit-by- Rule	SSOA	MSOP	FESOP	Title V
Exemption	60 days	***	60 days	120 days	270 days	18 months
Registration		***	60 days	120 days	120 days	120 days*
Permit-by-Rule	60 days		60 days	120 days	120 days	120 days*
SSOA	60 days	***		120 days	270 days	18 months
MSOP	60 days	***	60 days		270 days*	18 months **
FESOP	60 days	***	60 days	no time clock		****
Title V	60 days	***	90 days	no time clock	120 days	

* Source will be issued a significant MSOP permit revision in 120 days which will include the condition that the source submit a FESOP application within 12 months of beginning operations of the new emissions unit.

** Source will be issued a significant MSOP permit revision in 120 days which will include the condition that the source submit a Title V application within 12 months of beginning operations of the new emissions unit.

*** Permit-by-Rule becomes effective as soon as IDEM has revoked the operating permit of the applicant, as per their request.

**** The latter of 120 days, or 15 days after EPA completes its 45 day review.

For Additional Information

To obtain additional information regarding technical, general, or permit specific questions about the air permitting program contact the IDEM Office of Air Quality Permit Reviewer of the Day:

Permit Reviewer of the Day
 IDEM Office of Air Quality
 Phone: (317) 233-0178
 E-mail: OAMPROD@dem.state.in.us

You may also contact one of the IDEM-authorized local air offices. For more information, consult the state rules on air construction permitting and the Office of Air Quality website. In addition, the Office of Air Quality has several electronic air permit applications available online for construction, operating, and Title V permitting.

Another helpful, and much more detailed source of information than this document is:

Air: An Indiana Air Permitting Guide; New Source Review and Operating Permits, by Marcia Oddi, 266 pages, Published by the Indiana Chamber of Commerce in partnership with IDEM, 1998. ISBN 1-883698-18-9. To obtain a copy, contact IDEM at the number listed above. (However, it is important to note that since the time of this publication, the permitting rules have been revised; therefore some of the information in the Air: An Indiana Air Permitting Guide may have been affected.)

Disclaimer

This permit guide is intended to provide background information which should be useful in planning for a particular project that may require an environmental permit. It does not substitute for consultation with the appropriate regulatory agency and/or the appropriate rules or statute.